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The Challenges and Opportunities of Farmland Acquisition in Southeast Asia

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One of the lingering effects of the food price crisis of 2007–2008 is a surge in the acquisition of farmland in developing countries by wealthier, food-insecure nations and private investors, with the aim of producing crops for their own markets. These projects could lead to much-needed investment being injected into rural, agricultural areas. However, there are also potential negative consequences, such as the poor losing access to, and control over, land on which they depend. It is therefore crucial that these land deals and the environment within which they take place are structured in such a way that they minimise the threats to human security and optimise the benefits.

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Executive Summary

Overview

The dramatic increase in food prices in 2007–2008 reminded many import-dependent countries of their vulnerability and prompted them to seek opportunities to secure their food supply through acquiring farmland overseas. This trend, known as farmland acquisition, has been the subject of much controversy and debate.

With farmland acquisition proving to be a necessity, particularly for countries short of arable lands and water resources, it is a trend that is likely to continue well into the future. As such, this NTS Perspectives proceeds on the basis that the debate must shift from whether or not farmland acquisition is desirable, to how it can be made beneficial to all stakeholders. To that end, it is argued that a balanced analysis of the issue which considers the viewpoints of both investing and host countries is essential.

Discussion

The paper begins with an overview of the 2007–2008 food crisis and its causes. Various explanations have been put forward to explain the sharp rise in prices: increasing demand for biofuels, changing food consumption patterns, a decline in agricultural investment and slower productivity growth in the agricultural sector, as well as population growth and speculative activity in agricultural commodity markets. Many of these factors continue to have an impact on the global food system, with long-term human security implications.

The projected rise in food prices and export restrictions imposed by major producers, combined with factors such as increasing pressures on natural resources, including land and water scarcity, have led certain wealthier nations to turn to farmland acquisition as a food supply strategy.

As farmland acquisition today is largely aimed at addressing food insecurity, many of the deals are government-to-government in nature. The acquirers are foreign regimes, or companies and investors closely tied to them such as sovereign wealth funds, while the sellers are governments dispensing land they nominally own. These deals involve large tracts of land, and also tend to focus on staples or biofuels rather than cash crops.

Farmland acquisition has generated much controversy, and has been called 'land grabbing'. Critics highlight potential negative consequences such as poor farmers being dispossessed of their land, the loss of food sovereignty, the impacts on the environment, etc.

This NTS Perspectives favours a more neutral term, 'farmland acquisition' – defined as 'the purchase of both the ownership and use rights through leases or concessions whether short or long term' (Cotula et al., 2009) – in line with the view that there is a need for a more balanced approach to the issue, one which takes into account the perspectives of both investing and host countries.

An analysis of the motivations and policies of investing countries such as Saudi Arabia, China and South Korea reveals that these countries face genuine food security issues. Over-reliance on agricultural markets for food supply is a major concern for these countries, as it renders them vulnerable to changes in policies by producer countries as well as to sharp price rises due to speculative activity by commodities traders. Farmland acquisition is seen as a way to bypass agricultural markets and their unpredictability, and ensure stable and affordable food for their own populations.

From the point of view of host countries, farmland acquisition clearly holds significant benefits. The large investments could result in economic and technological progress in the form of the creation of farm and off-farm jobs, the development of rural infrastructure and other poverty-reducing improvements, and the transfer of new agricultural technologies and practices. It also holds the prospect of a country strengthening its own food security situation as a result of positive spillover effects such as future global price stability and the production of food for local and national consumers in addition to overseas consumers.

However, as host countries often have high poverty levels, any deals involving farmland must factor in the socioeconomic impacts on indigenous populations and farming communities. Otherwise, social unrest and problems such as displacement could result.

Summary of Recommendations

As the discussion thus far has shown, there is a need to address food insecurity in investing countries while minimising the human security impacts on affected populations in host countries. This will require efforts at multiple levels – international, regional and national.

International level

- There is already momentum at the international level to establish an internationally accepted code of conduct which lays out the principles of responsible agricultural investment. Spearheaded by institutions such as the Food and Agriculture Organization of the United Nations (FAO), the International Food Policy Research Institute (IFPRI) and the World Bank among others, these principles could help minimise the potential threats posed by farmland acquisition and maximise its benefits. More attention should now be given to formalising these principles.

Regional level

- Even as countries in Southeast Asia welcome investments in their agricultural sectors, a set of principles for responsible agricultural investment should be developed for the region. This could be spearheaded by ASEAN. This is to ensure that parties entering into large-scale land transactions promote participation, transparency, accountability and equity.

National and sub-national level

- Host countries in Southeast Asia should strengthen national laws and make sure that farmland acquisitions are carried out within the conditions stipulated by the law.
- There is a need for host countries to develop a clear and comprehensive farmland investment framework that reflects national and local interests. The framework should take into account the views of those affected, or likely to be affected, by any farmland acquisition, namely, indigenous groups, small farmers and displaced populations.
- National governments in host countries must also ensure that the most vulnerable are protected from investor excesses or exploitation.
- Host countries also need to identify investors who seriously intend to carry out projects.

Introduction

Over 200 years ago, the Reverend Thomas Malthus made a seminal contribution to explaining the origin of the food problem in *An Essay on the Principle of Population*. He hypothesised that limited agricultural land and high population growth would inevitably lead to hunger, famine, disease and death because 'population, when unchecked, increases in a geometrical ratio … [while] subsistence increases only in an arithmetical ratio' (Malthus, 1798). In short, 'Malthus saw the food problem in terms of the growth of food supply falling behind the expansion of population, and saw both these growths as being primarily determined by nature' (Sen, 1982).

Sen (1982) refers to Malthus' argument that demand for food will outstrip supply as 'Malthusian pessimism', and he argues that it has not been well vindicated by history. One of the weaknesses of the Malthusian analysis is that he ignores or downplays the role of innovation, science and technology, and ingenuity in increasing food production (Sen, 1981, 1982). Sen points out that the great progress made in the natural sciences in the last 200 years has made it possible to vastly expand food production – far in excess of the growth of population which itself has been very rapid. This argument is reinforced by the success of the Green Revolution of the early 1960s (Box 1), which resulted in gross world food production (of cereals, coarse grains, roots and tubers, pulses and oil crops) growing from 1.84 billion tonnes in 1961 to 4.38 billion tonnes in 2007, an increase of 138 per cent (Royal Society, 2009). Despite a substantial increase in population numbers (from 3 billion in 1960 to 6.7 billion in 2009), per capita agricultural production has outpaced population growth.

The Return of Malthusian Pessimism?

As explained in the previous section, growth in agricultural productivity in the past decades has kept pace with rising demand. This has resulted in falls in food prices. For the last three decades, prices have been fairly constant, and at an all-time low in real terms. However, since the mid-1980s, yield growth has fallen in both high- and low-income countries. Also, since 2005, food prices have been rising; and they escalated sharply in 2007–2008, causing political and economic instability and social unrest in many countries. Indeed, global food prices increased by 83 per cent between 2005 and 2008 (Mittal, 2009). During this period, wheat prices increased by 127 per cent whereas rice prices increased by 170 per cent.

As a result, the number of people who suffer from chronic hunger, which is the status of persons whose food intake regularly provides less than their minimum energy requirements of about 1,800 calories per day, reached a historic high of 1.02 billion in 2009 (FAO, 2009). The regional distribution of undernourishment is estimated to be as follows:

- Far East and Pacific – 642 million (63 per cent).
- Sub-Saharan Africa – 265 million (26 per cent).
- Latin America and the Caribbean – 53 million (5 per cent).
- Near East and North Africa – 42 million (4 per cent).
- Developed countries – 15 million (2 per cent).

The situation improved in 2010 due to a more favourable economic environment and the fall in both international and domestic food prices. As a result, the number of undernourished people declined to 925 million, a fall of 9.6 per cent, from the 2009 level (FAO, 2010). However, it is likely that prices will continue to trend up over the next years (Foresight, 2011; OECD and FAO, 2011). As such it is important to understand the primary causes of the food crisis of 2007–2008. The following have been cited as major factors underlying the hyperinflation in the prices of food.

Box 1: The Green Revolution.

The Green Revolution (1965–1990) dramatically increased crop production (Hazell, 2009). At its core, the Green Revolution was driven by advances in technology which included 'changes to crop varieties (day-length insensitive, partitioning of carbohydrates to grain rather than straw, disease resistance), changes to agricultural practices (fertilisers, water management and pesticides) and broader social, economic and political change' (Royal Society, 2009).

Irrigated area grew from 25.2 per cent of the agricultural area in 1970, to 33.2 per cent in 1995. Likewise, fertiliser use also grew. In 1970, 23.9 kg of plant nutrients were applied per hectare (ha) of agricultural land and average use grew rapidly to reach 171.1 kg/ha by 1995 (Hazell, 2009; See also Table 1).

The adoption of high-yielding varieties of seeds resulted in an impressive increase in average cereal yields. Wheat yields grew by 4.1 per cent per year over the period 1965–1982; and rice yields by 2.5 per cent. Overall, cereal production in Asia doubled between 1970 and 1995, from 313 million tons to 650 million tons per year despite the population increasing by 60 per cent over the same period (Hazell, 2009).

Table 1: Indicators of input use during the Green Revolution in Asia.

Countries	Irrigated Area (% of agricultural area))		Fertiliser (kg/ha)		Annual growth rate in agricultural workforce	Annual growth rate in agricultural land area
	1970	1995	1970	1995	1967–1982	1967–1982
Bangladesh	11.6	37.6	15.7	135.5	1.07	0.05
China	37.2	37.0	43.0	346.1	1.92	0.03
India	18.4	31.8	13.7	81.9	1.59	0.19
Indonesia	15.0	15.2	9.2	84.7	1.41	0.00
Malaysia	5.9	4.5	43.6	148.6	0.57	1.03
Myanmar	8.0	15.4	2.1	16.9	1.93	-0.21
Nepal	5.9	29.8	2.7	31.6	1.82	1.56
Pakistan	67.0	79.6	14.6	116.1	2.41	0.33
Philippines	11.0	16.6	28.9	63.4	1.90	1.72
South Korea	51.5	60.8	251.7	486.7	-0.07	-0.38
Sri Lanka	24.6	29.2	55.5	106.0	1.69	-0.05
Thailand	14.2	22.7	5.9	76.5	2.17	2.52
Vietnam	16.0	29.6	50.7	214.3	1.58	0.54
Total	25.2	33.2	23.9	171.1	1.76	0.28

Source: Hazell (2009).

Growing Demand for Biofuels

Biofuel has been identified as an 'entirely new demand source' which puts increased pressure on global food security (Headey, 2010). The production of biofuels has distorted food markets by diverting grain away from food and towards fuel, by encouraging farmers to set land aside for biofuel production and by sparking financial speculation in grains. For example, demand for biofuels in the US and the European Union was credited with pushing up food prices by 75 per cent (Chakrabortty, 2008). It was estimated that the grain grown to produce fuels in the US in 2009 was enough to feed 330 million people for one year at average world consumption levels (Vidal, 2010; Figure 1).

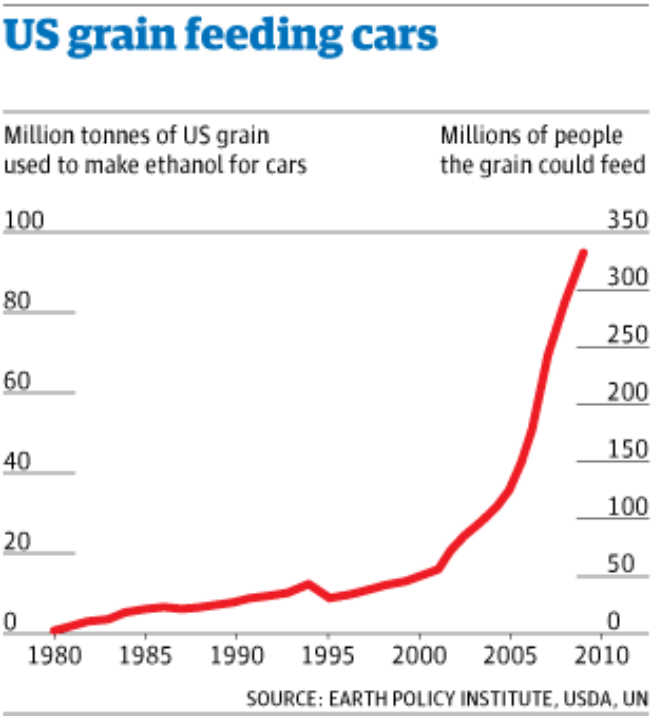
Changing Consumption Patterns

Increasing urbanisation and income particularly in the emerging economies of Asia have resulted in increased per capita consumption levels of animal products. With higher disposable incomes, people have moved away from diets based on indigenous staple grains or starchy roots, locally grown vegetables, fruits and limited foods of animal origin towards more varied diets that include more pre-processed food and more foods of animal origin.

Livestock production has also changed, from extensive (pasture-based grazing) to intensive systems, placing even more demand on staple grains. The feed use of primary food crop products such as cereals and pulses has increased rapidly over recent decades. In 2002, a total of 670 million tonnes of cereals were fed to livestock, representing roughly one-third of the global cereal harvest that year; and 350 million tonnes of protein-rich processing by-products (mainly bran, oilcakes and fishmeal) were used as feed (Steinfeld et al., 2006).

The global cattle population is predicted to increase by around 70 per cent, from 1.5 billion in 2000 to about 2.6 billion by 2050, and the global goat and sheep population by nearly 60 per cent, from 1.7 billion to about 2.7 billion over the same period (Foresight, 2011). Those increases will put further pressure on cereal production.

Figure 1: Grain for biofuels vs grain for food.



Source: Vidal (2010).

Declining Growth in Agricultural Productivity

The long period of low real food prices in the 1980s and 1990s led to under-investment in agricultural production (Headey, 2010). Globally, investment in agriculture makes up only 5 per cent of total R&D spending on science (Food: The Growing Problem, 2010). The immediate consequence of lower investment in agriculture is declining productivity. The annual rice yield growth rate, for example, has dropped to less than 1 per cent in recent years compared with 2–3 per cent during the Green Revolution (1965–1990). Based on projected income and population growth, annual productivity growth of at least 1.5 per cent will be needed until 2020 (IRRI, 2008).

Increasing Population

The UN (2009) projects that world population will increase from 6.8 billion in 2009 to 9.1 billion in 2050 (Table 2). Feeding this larger, and more urban, population requires agricultural production to grow by 70 per cent, which represents an annual growth rate in supply of about 1.1 per cent. Specifically, annual cereal production will need to rise to about 3 billion tonnes from 2.1 billion tonnes today; and annual meat production

Table 2: World population growth, 1950–2050.

Major area	Population (billion)			Population in 2050 (million) using medium fertility variant[1]
	1950	1975	2009	
World	2.529	4.061	6.829	9.150
More developed regions	0.812	1.047	1.233	1.275
Less developed regions	1.717	3.014	5.596	7.875
Africa	0.227	0.419	1.010	1.998
Asia	1.403	2.379	4.121	5.231
Europe	0.547	0.676	0.732	0.691
Latin America and the Caribbean	0.167	0.323	0.582	0.729
Northern America	0.172	0.242	0.348	0.448
Oceania	0.013	0.021	0.035	0.051

Note: This projection is made using a medium fertility variant projection which estimates that global fertility rate declines from 2.56 children per woman in 2005–2010 to 2.02 children per woman in 2045–2050).
Source: UN (2009).

will need to rise by over 200 million tonnes to reach 470 million tonnes (FAO, 2009).

Food Commodities Speculation

The agricultural commodities markets have in recent years witnessed a large-scale influx of non-traditional investors such as pension and hedge funds, sovereign wealth funds and financial institutions. This is in part due to the recent slowdown in credit and equity markets which have led to the rediscovery of the agricultural sector and a wave of interest in land acquisitions in developing countries (Deininger et al., 2011). These investors saw the opportunities afforded by the trend of rising food prices and proceeded to trade in food commodities. One such investor, Goldman Sachs, reportedly made a profit of USD1 billion through speculating on food in 2009. Such activities caused food prices to become more volatile and to rise and fall more sharply.

Long-Term Uncertainties

As mentioned earlier, the food security situation improved in 2010, with the number of malnourished people declining by 9.6 per cent from 2009 levels (FAO, 2010). However, long-term food security remains uncertain and the projections for the coming decades are deeply disquieting. The UK's Government Office for Science observes that the era of cheap food is at an end, with real prices of key crops set to rise by between 50 and 100 per cent over the next 40 years (Foresight, 2011). Furthermore, the report concludes that agricultural productivity growth will no longer be able to keep pace with rising demand for food, as it has done in recent decades.

The Organisation for Economic Co-operation and Development (OECD) and the Food and Agriculture Organization of the United Nations (FAO), in the latest edition of *Agricultural Outlook*, offer an estimate of food prices for 2011–2020. The report observes that over the coming

Under-investment in agriculture has led to declines in productivity growth, and this has contributed to the rise in food prices.

decade, real prices for cereals could average as much as 20 per cent higher and those for meats as much as 30 per cent higher compared to 2001–2010 (OECD and FAO, 2011). The report also predicted that global agricultural production will grow more slowly over the next decade compared to the previous 10 years. Specifically, farm output is expected to rise by 1.7 per cent annually, compared to the 2.6 per cent growth rate of the past decade.

Farmland Acquisition as a New Food Security Strategy

One of the lingering effects of the global food crisis and the continued uncertainty over long-term food security on the world food system is the proliferation of farmland acquisitions in developing countries by those countries seeking to ensure their food supply (Von Braun and Meinzen-Dick, 2009). This practice has been framed as 'finance rich, net food importing countries' acquiring farmlands in 'land and resource rich, finance-poor countries' (Borras and Franco, 2011:32).

International attention was initially drawn to this phenomenon through a 2008 report titled *SEIZED!* by GRAIN, a Spain-based non-governmental organisation (NGO). The report highlighted 100 farmland acquisition cases worldwide. In all, an estimated 15–20 million hectares (ha) of farmland worth USD20–30 billion have been transacted since 2006 (Outsourcing's Third Wave, 2009). This is equivalent to the size of France's agricultural land and a fifth of all the farmland in the European Union. GRAIN refers to this phenomenon as a 'land grab', defining it thus:

> the acquisition (through lease, concession, outright purchase) by corporations or states of large farmland (over 10,000 hectares) in another country and on a long-term basis (often from 30 to 99 years), for the production of basic foods that will then be exported. (GRAIN, 2008)

The term 'land grab' describes an illegal action. The *Oxford English Dictionary* (2011) offers a historical definition which states that 'land-grabber' is 'used chiefly in Ireland as a term of reproach for one who takes a holding from which another has been evicted'. In other words, a 'land grabber' is someone who gains possession of land unfairly or fraudulently.

The issue has prompted much debate, with discussion on the subject largely dominated by the potential negative impacts. Jacques Diouf, then head of the FAO, for example, noted that such land deals are a form of 'neo-colonialism', with poor states producing food for the rich at the expense of their own hungry people (Borger, 2008). Petras (2008) calls it 'neo-colonialism by invitation'. Besides neo-colonialism, the following have been used to describe the phenomenon: 'outsourcing's third wave', 'the great land giveaway' and 'the 21st-century land rush' (respectively, Ferguson, 2008; Petras, 2008; Hurst, 2010).

Do the terms correctly describe the phenomenon given that in most cases land was acquired with the consent of the host country's government? In order to better understand the debate surrounding the issue, there is a need for a balanced analysis of the drivers of the phenomenon and of the views of both investing and host countries. A broader understanding would be critical to devising solutions which are beneficial to all stakeholders.

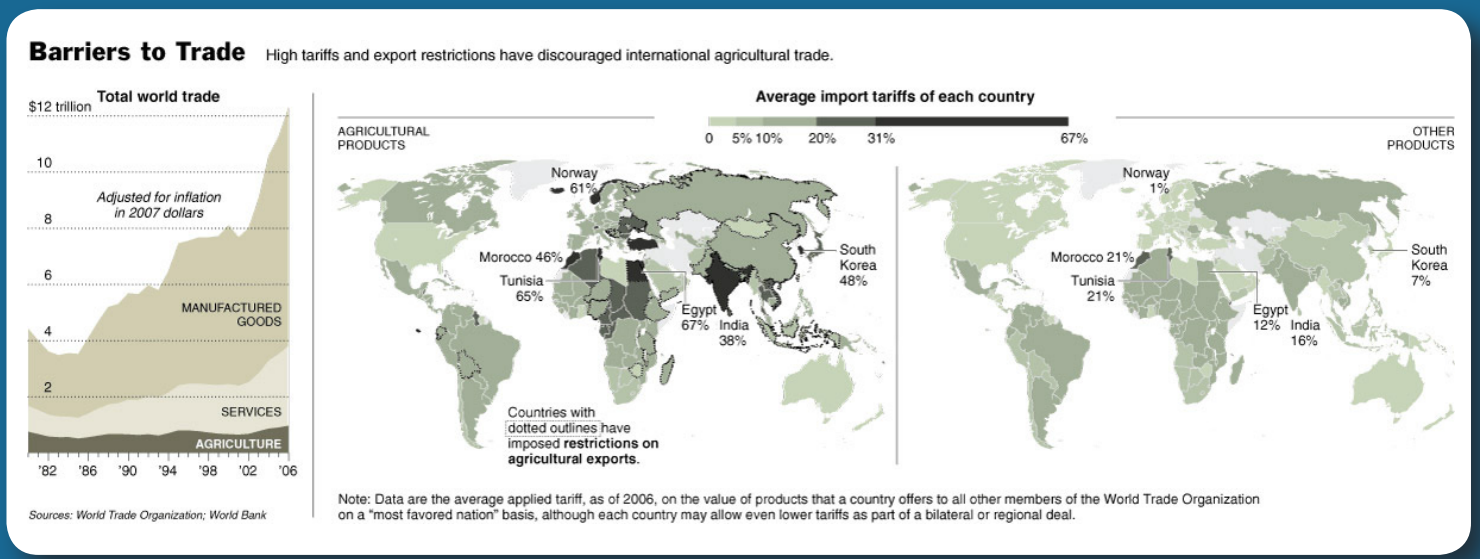
In attempting to arrive at a balanced, comprehensive understanding of the issues, this analysis avoids the use of the term 'land grab', favouring instead the more neutral 'farmland acquisition', which is defined as 'the purchase of both the ownership and use rights through leases or concessions whether short or long term' (Cotula et al., 2009).

Farmland acquisition for the purpose of securing food supply is not a completely new phenomenon. The phrase 'banana republics', for example, originally referred to servile dictatorships running countries whose economies were dominated by foreign-owned fruit plantations (Moberg, 1996). In the past, foreign farming investment was usually private: private investors bought land from private owners.

Today, however, the majority of the new land deals are government-to-government in nature. The acquirers are foreign regimes, or companies and investors closely tied to them such as sovereign wealth funds. The sellers are host governments dispensing land they nominally own. The other difference is scale. A big land deal used to be around 100,000 ha. Now the largest ones are often many times that. Also, unlike the older projects which are centred on cash crops (coffee, tea, sugar, bananas), the current ones mostly focus on staples or biofuels (wheat, maize, rice, jatropha).

The drivers of farmland acquisition include increasing pressures on natural resources, including land and water scarcity, and export restrictions imposed by major producers (Von Braun and Meinzen-Dick, 2009).

Figure 2: Barriers to trade.



Source: Bradsher and Martin (2008).

Export restrictions have played a major role in perpetuating the phenomenon. Agricultural export restrictions constitute defensive measures implemented by economies to protect consumers or producers. They may take a wide variety of forms: export bans, export taxes, export quotas and/or export-restricting measures implemented by state trading enterprises (Mitra and Josling, 2009). The dramatic increase in commodity prices in late 2007 and early 2008 led many countries to impose such restrictions in an attempt to ensure domestic food security, maintain enough stocks to cushion unforeseen agricultural failures and ensure that food is available at affordable prices (Figure 2). At least 29 countries are reported to have sharply curbed food exports at the height of the food crisis; 11 other countries limited or banned the export of rice; 15 countries capped or halted wheat exports; and more than a dozen countries limited corn exports (Bradsher and Martin, 2008).

As a result of the actions discussed above, food importing countries have come to realise that their dependence on agricultural markets makes them vulnerable not only to a surge in prices but, more crucially, to an interruption in supply. Bypassing the volatile global agricultural markets by farming foreign lands and shipping back food products therefore becomes an attractive strategy.

The Middle East

Major food importing countries such as those in the Middle East are highly vulnerable to fluctuations in international agricultural commodity markets. Arab countries, in particular, are the largest importers of cereal in the world, with most countries importing at least 50 per cent of the food calories they consume (FAO, 2009). According to the Khartoum-based Arab Organization for Agricultural Development, Arab countries are also the largest single group of farm-produce importers. The food gap (the difference between imports and exports of food products)

Table 3: Arab food self-sufficiency rates, 2008 and 2009.

Food Commodities	2008 (%)	2009 (%)
Cereal	45.4	49.3
Wheat	41.7	47.9
Corn	35.3	34.1
Rice	74.1	75.05
Barley	21.5	28.9
Vegetable	101.8	101.1
Fruit	98.1	97.5
Sugar	29.1	27.6
Cooking oil	36.7	32.1
Meat	86.6	86.1
Poultry	75.09	74.5
Egg	98.7	98.1
Fish	105.9	105.8
Dairy	70.1	68.5

Note: Arab countries include all members of the League of Arab States: Algeria, Bahrain, the Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates (UAE) and Yemen.
Source: Kawach (2010).

is significant for countries in the Arab region; the cumulative food gap for the period 2000 to 2009 is estimated at USD180 billion (Kawach, 2010). The food gap peaked at around USD29.8 billion in 2008 due to a surge in global food prices.

Except for fish, vegetables and other minor crops, Arab nations suffer from a persistent shortage of all types of farm products, and the gap has steadily worsened over the past two decades. Wheat accounts for more than half the shortage. The food gap is also clearly seen in the import figures for cereal, barley, sugar, cooking oil, corn, rice and poultry. Table 3 shows the self-sufficiency rates in Arab countries for various food commodities.

Food insecurity in Arab countries is further amplified by growing water scarcity. The Arab world, already one of the driest regions in the world, is expected to face an even more serious water crisis in the future. According to the Arab Forum for Environment and Development, the Arab world will tip into severe water scarcity as early as 2015 (Barghouti, 2010). By then, Arabs will have to survive on less than 500 cubic metres of water a year each, or below a tenth of the world average of more than 6,000 cubic metres per capita. Rapid population growth will further stress water resources in Arab countries. The Arab population, estimated at 360 million in 2010, is predicted to increase to 600 million by 2050.

Maplecroft's *Water Stress Index 2011* is instructive, highlighting the extent of water scarcity in Arab countries and the wider Middle East and North Africa (MENA) region. The index ranked MENA nations at the top of the 17 countries categorised as 'extreme risk'. Bahrain was deemed most at risk, followed by Qatar (2), Kuwait (3), Saudi Arabia (4), Libya (5), the disputed territory of Western Sahara (6), Yemen (7), Israel (8), Djibouti (9) and Jordan (10) (Maplecroft, 2011).

Concerns over declining water resources mean that Arab countries may increasingly have to make a difficult choice, between the goal of food self-sufficiency and that of preservation of water resources. At least one country, Saudi Arabia, has already announced its decision to forgo self-sufficiency in wheat by phasing out its production completely by 2016 in order to preserve its ground-water resources (Karam, 2008).

To compensate for the loss of domestic food self-sufficiency, Saudi Arabia announced a new food security policy in 2008 known as King Abdullah's Initiative for Saudi Agricultural Investment Abroad. The Initiative focuses on guaranteeing food supply for Saudi Arabia through building up strategic stock levels for selected grains. It also seeks to avoid future food crises by providing incentives to Saudi companies and individuals to invest in foreign countries that have a comparative advantage in agricultural production (Al-Obaid, 2010; USDA, 2011). Specifically, the Initiative envisages the production of rice, wheat, feed barley, yellow corn, soybean meal, oilseeds, sugar, and livestock and poultry meat in foreign countries and their export to Saudi Arabia.

The Initiative calls upon Saudi private agricultural companies and individual investors to take a leading role in investing in the production of the aforementioned crops overseas, with USD800 million allocated to serve as a credit facility for interested firms. Since the announcement of the Initiative, high-level Saudi government officials led by the Minister of Commerce and Industry have made exploratory visits to 14 out of 27 countries identified under the Initiative (Abbas, 2011).

China

Although China is a substantial food exporter (USD29 billion in 2008), it is also a net importer (USD57 billion worth of imports in 2008) (Foresight, 2011). The country's plans to acquire overseas farmland had its beginnings in 2007 when its Ministry of Agriculture was charged with the establishment of an overseas farming plan (Ferguson, 2008). This plan is an extension of the outward direct investment (ODI) policy that China has pursued since 1979 (Salidjanova, 2011). Also known as the 'go outward' strategy, the ODI strategy involves China's businesses venturing into foreign markets and acquiring foreign assets and equity stakes in key sectors such as energy and aviation. As of 2009, China

had overseas investments in 177 countries or territories including Hong Kong and Macau. By the end of 2009, China's cumulative ODI stock reached USD245.75 billion (MOFCOM, 2010).

The recent addition of agricultural commodities and farmlands to China's investment portfolio is aimed at securing national food security, in much the same way that its investment in foreign energy and resource industries is a strategic move to support its energy security. China's current food consumption is mostly satisfied by domestic production, but foreign imports are still necessary to satisfy all local needs. Moreover, the potential per-hectare yield of foreign farming land in places such as Lao PDR and Cambodia is usually much higher than China's average. Therefore, leasing foreign farmlands represents a more efficient option for food production than purchasing agricultural products from overseas producers.

South Korea

South Korea, which imports more than 90 per cent of its food from overseas, had also been jolted by the food crisis of 2007–2008 (Muller, 2011). The country was highly dependent on a few countries, namely, the US, Australia, Brazil, Argentina and Canada, and a handful of companies including Cargill, Archer Daniels Midland and Bunge. Eighty per cent of its grain imports came from these sources. As such, South Korea was subject to their market power.

A report by the Samsung Economic Research Institute titled *New Food Security Strategies in the Age of Global Food Crises* noted that excessive dependence on overseas supply is highly detrimental to South Korea's food security in light of it becoming increasingly difficult to purchase food from the international market due to export restrictions imposed by major food producing countries (Park et al., 2011). The report therefore recommends that the country secure foreign bases for food production through overseas agricultural development in order to improve its 'import structure and capability'. It urges the government to provide comprehensive support for domestic firms and to make arrangements for the appropriate financial resources through overseas agricultural development funds. As many as 60 South Korean companies are currently involved in farming in 16 countries.

Southeast Asia: Breadbasket of the World?

Countries starved of land and water resources but rich in capital such as those discussed in the previous section have increasingly eyed Southeast Asia as a solution to their food problems. This is complemented by the interest of countries in the region in attracting foreign agricultural investments. As a result, Southeast Asia has, in recent years, become a hotspot for international farmland acquisition. The following sections will look at the policies and dynamics of farmland acquisition in Cambodia, Indonesia, Lao PDR and the Philippines as these four countries are the most enthusiastic in welcoming foreign investments in agriculture.

Cambodia

Cambodia aims to become a major rice exporter, producing 15 million tonnes of rice by 2015, more than double the 7 million in 2008–2009 and 6.8 million in 2007–2008. The Cambodian government claims that the country has 6 million ha available for rice cultivation, of which only 2.6 million ha are currently being utilised, mainly for rice cultivation (Montero, 2008). It therefore plans to increase the area for rice cultivation to 3.5 million ha (Cambodia To Invest, 2010).

Using instruments such as State Land Concessions (SLC) and Economic Land Concessions (ELC), Cambodia has been actively leasing out lands to both local and foreign companies. As of December 2006, 59 ELCs were known to be in force, covering a total of 943,069 ha in 15 provinces – or 5.2 per cent of Cambodia's total land area, and 14.5 per cent of its arable land (this excludes smaller concessions of less than 1,000 ha) (LICADHO, 2009).

In June 2009, Cambodia's Ministry of Agriculture, Forestry and Fisheries confirmed that South Korea's KOGID Cambodia Co. planned to invest

A signboard placed by the authorities in Papua, Indonesia, thanking the central government for developing Merauke as a national food centre.

USD150 million to grow and process corn for animal feed to be sold overseas. As part of the first phase, the company will invest USD38 million between 2009 and 2012 (Sophal, 2009). Also, in February 2009, 16 livestock farmers from South Chungcheong, South Korea, invested 100 million won each to purchase 474 ha of land in Kampot, Cambodia, for the production of 3,000 tons of corn for the Korean market (Korea Seeks Cheap Land, 2009).

In 2010, Kuwait and China committed to providing loans of USD546 million and USD240 million respectively. These loans will be used to improve and build irrigation systems, hydropower facilities and roads in the country (Cambodia To Invest, 2010).

Indonesia

Indonesia aims to become one of the world's net food producers by developing new farmlands and encouraging foreign and local investors to lease fertile agricultural land in the countryside. To realise this, President Susilo Bambang Yudhoyono announced an ambitious plan to 'feed Indonesia and then feed the world' in January 2010 (Maulia, 2010). The main objective of this plan is to transform Indonesia into a global food producer in 15 key food commodities, namely, rice, corn, sugar, soybeans, palm oil, tea, coffee, cocoa, tuna, shrimp, beef, poultry, mangos, bananas and oranges, by 2030. This will be achieved through fast-track development of vast agricultural estates in remote areas such as Papua and Kalimantan.

In the wake of this announcement, Indonesia launched the USD5 billion Merauke Integrated Food and Energy Estate (MIFEE) in Merauke, Papua, in August 2010 (Ekawati, 2010). It was hoped that the food estate, which is to be developed on 1.6 million ha of land, will enable Indonesia to become not only self-sufficient in food but also a major exporter. Franciscus Welirang, head of the Permanent Committee for Food Resilience of the Indonesian Chamber of Commerce and Industry estimated that the successful implementation of the programme could contribute at least USD101.5 billion to the country's revenues for 2010–2014 (Maulia, 2010).

Indonesia's plans to open up its agricultural sector to investors have attracted considerable attention. As of May 2010, principal permits to cultivate more than 2 million ha have been awarded to 36 domestic and foreign private companies (Jiwan, 2011).

Among the countries that have shown interest is South Korea. In 2008, a South Korea-based company, PT Agro Enerpia Indonesia, announced plans to invest USD2 billion in 10,000 ha of corn plantations in Central Sulawesi (S Korean Co To Invest, 2008). In January 2009, it was announced that PT Daewoo Logistic Indonesia and Cheil Jedang Samsung will invest USD50 million in a joint project to build an integrated corn industry on the islands of Buru and Sumba (South Korean Investors To Grow, 2009). In early 2011, another South Korean company announced plans to invest USD23.2 million to develop a corn plantation in East Kalimantan (S. Korean Firm Eyes, 2011).

Countries from the Middle East have also been actively trying to acquire lands in Indonesia. In 2008, the Saudi BinLadin Group announced plans to invest at least USD4.3 billion in the cultivation of rice on 500,000 ha of land in Papua (BinLadin Group May Invest, 2008). The planned investment has however stalled due to problems related to the acquisition of permits from Papuans (Bhui, 2009).

Meanwhile, the United Arab Emirates' (UAE) Minerals Energy Commodities (MEC) Holdings has held talks with Indonesia to lease around 100,000 ha of farmland in East Kalimantan at a cost of around USD1 billion (Bakr, 2010). The project is expected to start operations in 2011, and will produce rice, sugar cane, palm oil and fruits.

Lao PDR

Lao PDR is a relatively new entrant in terms of farmland acquisition activity. Of the 2 million ha available for agriculture, only 900,000 ha are currently being farmed. Bouasone Bouphavanh, then Prime Minister of Lao PDR, announced in June 2010 that his government will allow foreign companies and individuals to invest in rice cultivation as this would enable Laotian farmers to benefit from transfer of new technology in rice cultivation, processing and marketing (Phouthonesy, 2010). Most importantly, it was hoped that opening up farmlands to foreign investors would boost the nation's food security by adding to its stockpile of grains.

Kuwait and Lao PDR reached an agreement on agricultural cooperation in 2009 (Kuwaiti Firms Eye Investment, 2009). Subsequently, Kuwait provided USD350,000 to study the feasibility of extending the irrigation system in Lao PDR so that rice can be grown for export to Kuwait (Syvongxay, 2010).

China and South Korea has also shown increasing interest. In March 2004, Lao PDR signed an agreement with southwest China's Chongqing municipal government to build a comprehensive agricultural park for China's enterprises to produce grain (China To Lease Overseas Farmland, 2004). USD5 million will be poured into 5,000 ha of land, for plantation, fishery and processing activities.

South Korea signed a memorandum of understanding (MoU) in 2008 for the establishment of cassava plantations on 10,000 ha of land in Bokeo province with the option of expanding the project to other provinces. The investment was estimated at USD15 million (S. Koreans Eye Investment, 2008).

Philippines

The Philippines aims to become self-sufficient in rice by 2013 through large-scale development of an estimated 1.9 million ha of under-developed land (Stephenson, 2009). It has been estimated that Mindanao alone has more than 171,000 ha that would be suitable for agriculture. Given this opportunity, the Philippine Agricultural Development and Commercial Corporation is working with the Philippine Economic Zone Authority (PEZA) to set up special Agro-Industrial Economic Zones in prime agricultural land in the country. Already 13 such zones have been operationalised and 3 more zones are currently being developed (PEZA, n.d.).

Table 4: Summary of land deals.

Host Country	Summary of Land Deals
Cambodia	**The Middle East** • 2009: Kuwait agreed to provide loans totalling USD546 million to develop agriculture, and build hydropower facilities and roads. **South Korea** • 2009: 16 livestock farmers from South Chungcheong invested 100 million won each to purchase 474 hectares (ha) of land in Kampot, Cambodia, for the production of 3,000 tons of corn for the Korean market. • 2009: KOGID Cambodia Co. will invest USD150 million to grow and process corn for animal feed. **China** • 2010: China agreed to provide loans totalling USD240 million to improve and build irrigation systems, hydropower facilities and roads.
Indonesia	**The Middle East** • 2008: The Saudi BinLadin Group announced plans to invest USD4.3 billion to cultivate rice on 500,000 ha of land. The project has since stalled. • 2010: The United Arab Emirates' (UAE) Minerals Energy Commodities (MEC) Holdings were in talks to lease around 100,000 ha of farmland in East Kalimantan at a cost of around USD1 billion. **South Korea** • 2008: PT Agro Enerpia Indonesia announced plans to invest USD2 billion in 10,000 ha of corn plantations in Central Sulawesi. • 2009: PT Daewoo Logistic Indonesia and Cheil Jedang Samsung announced plans to invest USD50 million in an integrated corn industry on the islands of Buru and Sumba. • 2011: An unnamed company announced plans to invest USD23.2 million in 5,000 ha of land to develop a corn plantation in East Kalimantan.
Lao PDR	**The Middle East** • 2009: Kuwait provided USD350,000 to study the feasibility of extending the irrigation system so that rice can be grown for export to Kuwait. **China** • 2004: Lao PDR signed an agreement with southwest China's Chongqing municipal government to build a 5,000 ha agricultural park for Chinese enterprises to produce grain. **South Korea** • 2008: South Korea signed a memorandum of understanding to establish cassava plantations on 10,000 ha of land at a cost of USD15 million.
Philippines	**The Middle East** • 2009: Bahrain and the Philippines signed a USD300 million banana export agreement involving 10,000 ha of land. • 2010: Bahrain and the Philippines signed an agreement to set up a USD500 million joint agricultural company. • 2011: Saudi Arabia has invested in joint ventures to produce basmati rice, yellow corn, bananas and pineapple on 5,000 ha of land in Davao del Norte province. • 2011: There is interest from Saudi Arabia in developing major aquaculture projects using over 1,000 ha of land, and in establishing poultry farms. **China** • 2010: Beidahuang China will, in partnership with Filipino firm AgriNurture, develop 5,000–10,000 ha of land in Central Luzon and Mindanao. **South Korea** • 2009: Jeonnam Feedstock signed a deal to lease 95,000 ha of land for 25 years in the Oriental Mindoro province.

Source: Compiled from http://www.farmlandgrab.org/

Arab countries have become the most prolific investors in the Philippines in recent years. Saudi Arabia, for example, harbours ambitions to make the Philippines the Kingdom's 'food hub', starting with investments in production initiatives and joint ventures with local agribusiness firms (Romero, 2009). Saudi Arabia has invested in joint ventures to produce basmati rice, yellow corn, bananas and pineapple over about 5,000 ha in the Davao del Norte province. There are also plans to develop major aquaculture projects using over 1,000 ha of land, and there is also interest in establishing poultry farms (Sathish, 2011).

In March 2010, Bahrain and the Philippines signed an agreement to set up a USD500 million joint agricultural company to help Bahrain achieve food sufficiency (Bahrain To Set Up, 2009). The Philippine government announced that it would allocate about 10,000 ha of arable land for the purpose of growing rice, corn, sugar plants, pineapple and vegetables. Furthermore, the two countries signed a USD300 million banana export agreement involving 10,000 ha of land in September 2009 (AMA Group, 2010).

The UAE also signed an MoU with the Philippines in July 2008 to boost the UAE's stocks of food products such as banana, pineapple, corn, vegetables as well as farm and poultry items (Maceda, 2008).

China and South Korea have also emerged as two of the biggest investors in farmlands in the Philippines. In September 2010, it was reported that Beidahuang China, an agricultural conglomerate and the corporate arm of Heilongjiang provincial government in northern China, had entered into a joint venture with Filipino firm AgriNurture (Sabater, 2010; Chanco, 2009). The joint venture will initially develop 5,000–10,000 ha of farmland together with contract growers in Central Luzon and Mindanao.

Jeonnam Feedstock, a company managed by the South Jeolla province of South Korea, signed a contract in April 2009 to lease 95,000 ha of land for 25 years in the Oriental Mindoro province. The company plans to plant 1,000 ha of corn for experimental purposes as early as September 2009. This could produce 10,000 tons of feed in the first year (SKorea Leases Philippine Farms, 2009).

Towards Equitable Policies

There are clearly significant benefits that could accrue from foreign investments in farmlands in Southeast Asia, for investing as well as host countries. However, any attempts at farmland acquisition must pay attention to the region's socioeconomic conditions. A substantial proportion of the population in Southeast Asia live below the USD1.25 international poverty line: Cambodia (40.2 per cent), Indonesia (21.4 per cent), Lao PDR (44.0 per cent) and the Philippines (22.6 per cent) (World Bank, 2008). Most of the poor live in rural areas and they subsist primarily on agriculture. As such, it is essential that farmland acquisitions be designed in such a way that it could help alleviate poverty and improve the productivity of the rural poor. Doing this will require efforts at the international, regional, and national and sub-national level.

International Level

At the international level, there is increasing recognition that large-scale agricultural investment poses significant challenges which can be addressed successfully only if stakeholders are able to collaborate effectively. The World Bank, for example, has recognised that there are no solutions to current farmland acquisition other than the pursuit of win-win formulas via a code of conduct (FAO et al., 2010). Such a code of conduct should be based on the seven principles summarised in Box 2.

The International Food Policy Research Institute (IFPRI) made a similar recommendation, highlighting transparency in negotiations, respect for existing land rights (including customary and common property rights), sharing of benefits, environmental sustainability and adherence to national trade policies (Von Braun and Meinzen-Dick, 2009).

Box 2: Principles of responsible agricultural investment.

Principle 1: Respecting land and resource rights.
Existing rights to land and associated natural resources are recognised and respected.

Principle 2: Ensuring food security.
Investments do not jeopardise food security but rather strengthen it.

Principle 3: Ensuring transparency, good governance and a proper enabling environment.
Processes for accessing land and other resources and then making associated investments are transparent, monitored and ensure accountability by all stakeholders, within a proper business, legal and regulatory environment.

Principle 4: Consultation and participation.
All those materially affected are consulted, and agreements from consultations are recorded and enforced.

Principle 5: Responsible agro-investing.
Investors have to ensure that projects respect the rule of law, reflect industry best practice, are viable economically and result in durable shared value.

Principle 6: Social sustainability.
Investments generate desirable social and distributional impacts and do not increase vulnerability.

Principle 7: Environmental sustainability.
Environmental impacts due to a project are quantified and measures are taken to encourage sustainable resource use while minimising the risk/magnitude of negative impacts and mitigating them.

Source: FAO et al. (2010).

These principles and code of conduct will now need to be translated into action by investors, governments, donors and international agencies.

Regional Level

ASEAN has made significant efforts to improve regional food security. The most comprehensive articulation of its position on food security and agricultural development is contained in the Strategic Plan of Action on ASEAN Cooperation in Food, Agriculture and Forestry, which grew out of the 1997 Hanoi Plan of Action to establish a 'concert of Southeast Asian nations' by 2020 (ASEAN, 2003). The Plan of Action offers practical targets and programmes for ASEAN member states in the areas of data sharing, improved access to pricing information in food markets, R&D, trade, sharing of agricultural technology, private sector engagement and conservation of natural resources, among many others.

Furthermore, ASEAN, along with China, Japan and South Korea, established a regional rice reserve stock through the ASEAN Plus Three Emergency Rice Reserve (APTERR) in 2010. The APTERR would be activated only in emergencies, that is, when rice imports are insufficient to meet domestic food requirements. Price and the terms and conditions for distribution are to be negotiated directly between countries.

Although these are significant steps towards improving regional food security, ASEAN has not engaged in discussions on farmland acquisition. As Southeast Asia becomes a hotspot for farmland acquisition, ASEAN must take the lead in formulating a regional code of conduct which directly addresses this phenomenon.

ASEAN could benefit from studying steps taken by the African Union which has approved a draft *Framework and Guidelines on Land Policy in Africa* in 2009. The framework seeks to: (1) offer a basis for commitment by African member states to the formulation and operationalisation of sound land policies as a foundation for sustainable human development that includes assuring social stability, maintaining economic growth and alleviating poverty, and protecting natural resources from degradation and pollution; (2) promote a consensus on the principles which would form the basis for securing access to land for all users, enhancing agricultural productivity and sustaining livelihoods; (3) underscore the need for popular participation in land policy formulation and implementation so as to facilitate improved governance of land resources; (4) suggest standards for best practices for land policy reforms, and benchmarks for the performance of land institutions, that member states can adopt in keeping with their respective contexts; (5) articulate a policy framework for addressing emerging issues and anticipating future trends in land resources and related matters (AU et al., 2009).

In addition, the African Development Bank (AfDB) has a Code of Conduct for Land Acquisition and Land Use in Agricultural and Agribusiness Projects for the African Agriculture Fund (AAF) and its portfolio companies. The guide is intended to help the institutions adhere to the highest standards with respect to land acquisition and land use in proposed investments across Africa (AfDB, 2010). The code of conduct addresses issues pertaining to environmental and social sustainability, stakeholder engagement, conflict prevention, smallholder farmers, etc.

National and Sub-national Level

Frameworks for farmland acquisition should have provisions for the views of those most affected – namely, indigenous groups, small farmers and displaced populations – to be heard and considered. For example, as mentioned in an earlier section, due to the lack of clear laws and regulations on farmland acquisition in Indonesia, a planned USD4.3 billion investment by the Saudi Binladin Group to grow basmati rice in Papua has stalled because of 'problems acquiring land from local people' (Bhui, 2009). The large-scale conversion of land into food estates in the province has also raised the spectre of social unrest among its indigenous population. It is feared that labour migration from other provinces would lead to migrant numbers overtaking that of Merauke's indigenous population, currently estimated at a little more than 200,000 (Jiwan, 2011).

Issues related to the mass displacement of people will also have to be addressed. According to the Cambodian League for the Promotion and Defense of Human Rights (LICADHO), the proliferation of large-scale farmland acquisitions has caused massive displacement in Cambodia. In the 13 provinces (roughly half the country) where LICADHO has a presence, 53,758 families were affected by forced evictions between 2003 and 2008 (LICADHO, 2009).

To remedy negative fallouts from farmland acquisition, governments in Southeast Asia should establish laws to regulate the deals. A closer analysis of regional farmland acquisition trends shows that there has been some progress in the establishment of such laws. Indonesia, for example, announced new requirements for farmland acquisition in April 2010. The new rules state that investors have to obtain local government permission before developing farms or estates in order to prevent land disputes (Indonesia Says Food, 2010). Specifically, those investing in farms larger than 25 ha or employing more than 10 workers will have to get permits from regents or governors. Moreover, foreign ownership of plantations producing staple foods will be capped at 49 per cent (Indonesia Seeks Saudi, 2010).

Cambodia also introduced a new Land Law in July 2001. The aim of the law is 'to determine the regime of ownership for immovable properties in the Kingdom of Cambodia for the purpose of guaranteeing the rights of ownership and other rights related to immovable property' (Royal Government of Cambodia, 2001). Article 59 of the Land Law states that a land concession should not exceed 10,000 ha. This however, has not been strictly enforced, and land concessions of more than 10,000 ha are not uncommon. Similarly, the Sub Decree on Social Land Concessions, introduced in March 2003 as a 'legal mechanism to transfer private state land for social purposes to the poor who lack land for residential and/or family farming purposes' (Royal Government of Cambodia, 2003) is used not so much to provide lands to the poor but to private companies for development projects. Thus, while it is encouraging that laws have been established to address issues related to land acquisition, the Cambodian government should do more to enforce these laws and ensure that investors meet the conditions stipulated by the laws.

Developing countries could also take advantage of schemes which could bring in substantial investment amounts without their having to lease farmlands to wealthy countries. For example, Indonesia entered into an agreement with Norway on 26 May 2010 aimed at reducing greenhouse gas emissions from deforestation and forest degradation (REDD) (Letter of Intent, 2010). Under the terms of the agreement, Norway will provide USD1 billion to Indonesia to help preserve 64 million ha of carbon-rich forests and peat-lands through the implementation of the UN-backed forest preservation scheme called REDD+ (which, in addition to deforestation and degradation, includes conservation, sustainable management of forests and enhancement of forest carbon stocks) (Koswanage and Taylor, 2011). As a first step towards implementing the terms of the agreement with Norway, Indonesia announced in May 2011 that it would freeze new permits for forest clearance for two years (President Signs Decree, 2011). This would have immediate implications for the oil palm sector in Indonesia, which has been experiencing an oil palm plantation boom (EIA and Telapak, 2009). Oil palm estates already sprawl across 7 million ha of Indonesian land. If the moratorium is stringently implemented, and if Indonesia strictly abides by the REDD+, then planters may have to concentrate on boosting yields from existing acreage.

Conclusion

Farmland acquisition has become a significant phenomenon in Southeast Asia, both in terms of extent and pace. There is, however, a lack of legal mechanisms to regulate and monitor such land deals. Countries should now work towards establishing laws that address the needs and concerns of groups that are likely to be affected by farmland acquisition. This is a vital step for countries wishing to realise the full benefits from foreign investment in their farmlands.

Additionally, ASEAN must step up its efforts, and devise a regional code of conduct for farmland acquisition. By addressing the challenges and threats, and applying good practices, farmland acquisition may actually strengthen the food security of both investing and host countries, and thus contribute to national, regional and global stability.

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